

IFW

PTO/SB/21 (04-07)
Approved for use through 09/30/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/561,448-Conf. #8178
	Filing Date	December 20, 2005
	First Named Inventor	Shimon Weiss
	Art Unit	2877
	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	Attorney Docket Number	58086-226455

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Second Information Disclosure Statement with Form PTO/SB/08 and 76 documents <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
<div>Remarks</div>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	VENABLE LLP		
Signature			
Printed name	Henry J. Daley		
Date	May 30, 2007	Reg. No.	42,459



Docket No.: 58086-226455
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Shimon Weiss et al.

Art Unit: 2877

Application No: 10/561,448

Examiner: Not Yet Assigned

Confirmation No: 8178

Filed: December 20, 2005

Atty. Docket No: 58086-226455

For: MODULATED EXCITATION
FLUORESCENCE ANALYSIS

Customer No:

26694

PATENT TRADEMARK OFFICE

SECOND INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear any patent to issue therefrom. Copies of Documents **CA-CY**, **CA1-CU2** and **CW2-CZ2** are enclosed.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Second Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Second Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

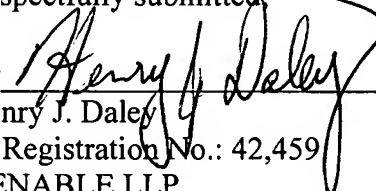
It is submitted that the Second Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 22-0261, under Order No. 58086-226455. A fee transmittal is enclosed.

Dated:

May 30, 2007

Respectfully submitted,

By 
Henry J. Daley
Registration No.: 42,459

VENABLE LLP
P.O. Box 34385
Washington, DC 20043-9998
(202) 344-4000
(202) 344-8300 (Fax)
Attorney/Agent For Applicant



Used in Lieu of PTO/SB/08A/B
(Based on PTO 04-07 version)

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	10/561,448-Conf. #8178	
			Filing Date	December 20, 2005	
			First Named Inventor	Shimon Weiss	
			Art Unit	2877	
			Examiner Name	Not Yet Assigned	
Sheet	1	of	5	Attorney Docket Number	58086-226455

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	US-6,200,818	3/13/2001	Eigen et al.	
	AB	US-5,933,233	8/3/1999	Gunther	
	AC	US-5,807,677	9/15/1998	Eigen et al.	
	AD	US-6,498,017	12/24/2002	Riesner et al.	
	AE	US-6,556,296	4/29/2003	Palo	
	AF	US-6,376,843	4/23/2002	Palo	
	AG	US-6,515,289	2/4/2003	Kask	
	AH	US-6,407,856	6/18/2002	Kask et al.	
	AI	US-6,122,098	9/19/2000	Kask et al.	
	AJ	US-6,208,815	3/27/2001	Seidel et al.	
	AK	US-6,137,584	10/24/2000	Seidel	
	AL	US-6,140,048	10/31/2000	Muller et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	Adams, S.R., et al., New Biarsenical Ligands and Tetracysteine Motifs for Protein Labeling in Vitro and in Vivo: Synthesis and Biological Applications. J. Am. Chem. Soc., 2002. 124(21): p. 6063-6076.	
	CB	Beliaev, A.S., et al., Gene and Protein Expression Profiles of Shewanella oneidensis during Anaerobic Growth with Different Electron Acceptors. OMICS, 2002. 6(1): p. 39-60.	
	CC	Bewley, C.A., A.M. Gronenborn, and G.M. Clore, MINOR GROOVE-BINDING ARCHITECTURAL PROTEINS: Structure, Function, and DNA Recognition. Annual Review of Biophysics and Biomolecular Structure, 1998. 27(1): p. 105-131.	
	CD	Bruchez, M., Jr., Moronne, M., Gin, P., Weiss, S. and Alivisatos, A.P. (1998) Science 281, 2013-6.	
	CE	Chen, Y., Müller, J.D., So, P.T. and Gratton, E. (1999) Biophysical Journal 77, 553-67.	
	CF	Chen, Y., Müller, J.D., Tetin, S.Y., Tyner, J.D. and Gratton, E. (2000) Biophysical	



Used in Lieu of PTO/SB/08A/B
(Based on PTO 04-07 version)

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	10/561,448-Conf. #8178	
			Filing Date	December 20, 2005	
			First Named Inventor	Shimon Weiss	
			Art Unit	2877	
			Examiner Name	Not Yet Assigned	
Sheet	2	of	5	Attorney Docket Number	58086-226455

		Journal 79,1074-1084.	
CG		Clegg, R.M. (1992) Methods Enzymol 211, 353-88.	
CH		Dahan, M., Deniz, A.A. Ha, T., Chemla, D.S., Schultz, P.G. and Weiss, S. (1999) Chemical Physics 247, 85-106.	
CI		Delneri, D., Brancia, F.L. and Oliver, S.G. (2001) Curr Opin Biotechnol 12, 87-91.	
CJ		Deniz, A.A. et al. (2000) Proc Natl Acad Sci U S A 97, 5179-84.	
CK		Deniz, A.A., Dahan, M., Grunwell, J.R., Ha, T., Faulhaber, A.E., Chemla, D.S., Weiss, S. and Schultz, P.G. (1999) Proceedings of the National Academy of Sciences of the United States of America 96, 3670-5.	
CL		Eggeling, C., Fries, J.R., Brand, L., Günther, R and Seidel, C.A. (1998) Proceedings of the National Academy of Sciences of the United States of America 95, 1556-61.	
CM		Eggeling, C., Widengren, J., Rigler, R and Seidel, C.A.M. (1998) Anal chem 70, 2651-2659.	
CN		Feldhaus, M., et al., Flow-cytometric isolation of human antibodies from a nonimmune Saccharomyces cerevisiae surface display library. Nat Biotechnol., 2003. 21(2): p. 163-70.	
CO		Fries, J.R., Brand, L., Eggeling, C., Kollner, M. and Seidel, C.A.M. (1998) Journal of Physical Chemistry a 102, 6601-6613.	
CP		Giometti CS, K.T., Tollaksen SL, Tsapin A, Zhu W, Yates JR 3rd, Nealson KH., Analysis of the Shewanella oneidensis proteome by two-dimensional gel electrophoresis under nondenaturing conditions. Proteomics, 2003. 3(5): p. 777-85.	
CQ		Ha, T., Enderle, T., Ogletree, D.F., Chemla, D.S., Selvin, P.R. and Weiss, S. (1996) Proc Natl Acad Sci U S A 93, 6264-8.	
CR		Ha, T., Rasnik, I., Cheng, W., Babcock, H.P., Gauss, G.H., Lohman, T.M. and Chu, S. (2002) Nature 419, 638-41.	
CS		Ha, T., Ting, A.Y., Liang, J., Caldwell, W.B., Deniz, A.A., Chemla, D.S., Schultz, P.G. and Weiss, S. (1999) Proc Natl Acad Sci U S A 96, 893-8.	
CT		Ha, T., Zhuang, X., Kim, H., Orr, J., Williamson, J. and Chu, S. (1999) Proc Natl Acad Sci U S A 96, 9077-9082.	
CU		Hazbun, T.R. and Fields, S. (2001) Proc Natl Acad Sci U S A 98, 4277-8.	
CV		Heinze, K.G., Koltermann, A. and Schille, P. (2000) Proceedings of the National Academy of Sciences of the United States of America 97, 10377-82.	
CW		Heyduk, E., Fei, Y. and Heyduk, T. (2003) Comb Chem High Throughput Screen 6, 347-54.	
CX		Heyduk, E., Knoll, E. and Heyduk, T. (2003) Anal Biochem 316, 1-10.	
CY		Heyduk, T. and Heyduk, E. (2002) Nat Biotechnol 20, 171-6.	
CZ		Hoch, J.A. and T.J. Silhavy, eds. Two-Component Signal Transduction. 1995, ASM Press: Washington, D.C.	
CA1		Holden, JA. (2001) Curr Mod Chem Anti-Canc Agents 1, 1-25.	
CB1		Ito, T., Chiba, T., Ozawa, R., Yoshida, M., Hattori, M. and Sakaki, Y. (2001) Proc Natl Acad Sci U S A 98, 4569-74.	
CC1		Kapanadis, A., et al. Single-Molecule Analysis of Sigma Factor Release. Annual Biophysical Society Meeting, San Antonio, 2003.	
CD1		Kapanadis, A.N., et al. Fluorescence-aided molecule sorting: Analysis of structure	



Used in Lieu of PTO/SB/08A/B
(Based on PTO 04-07 version)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete if Known		
			Application Number	10/561,448-Conf. #8178	
			Filing Date	December 20, 2005	
			First Named Inventor	Shimon Weiss	
			Art Unit	2877	
			Examiner Name	Not Yet Assigned	
Sheet	3	of	5	Attorney Docket Number	58086-226455

		and interactions by alternating-laser excitation of single molecules. PNAS 2004, 101:24 8936-8941.	
CE1	Kapanidis, A.N., and S. Weiss, Fluorescent probes and bioconjugation chemistries for single-molecule fluorescence analysis of biomolecules. Journal of Chemical Physics, 2002. 117(24): p. 10953-10964.		
CF1	Kapanidis, A.N., Ebright, Y.W. and Ebright, R.H. (2001) J Am Chem Soc 123, 12123-5.		
CG1	Kask, P. et al. (2000) Biophys J 78, 1703-13.		
CH1	Kask, P., Palo, K., Ullmann, D. and Gall, K. (1999) Proc Natl Acad Sci U S A 96, 13756-61.		
CI1	Kettman JR, F.J., Lefkovits L, Proteome, transcriptome and genome: top down or bottom up analysis? Biomol Eng., 2001. 18(5): p. 207-12.		
CJ1	Kinjo, M. and Rigler, R (1995) Nucleic Acids Res 23, 1795-9.		
CK1	Ko, D.S., Sauer, M., Nord, S., Müller, R. and Wolfrum, J. (1997) Chemical Physics 269, 54-58.		
CL1	Kohl, T., Heinze, K.G., Kuhlemann, R., Koltermann, A. and Schwille, P. (2002) Proc Natl Acad Sci U S A 99, 12161-6.		
CM1	Kolasa IK, L.T., Wierchowski KL., Effect of A(n) tracts within the UP element proximal subsite of a model promoter on kinetics of open. complex formation by Escherichia coli RNA polymerase. Acta Biochim Pol., 2002. 49(3): p. 659-69.		
CN1	Lacoste, T.D., Michalet, X., Pinaud, F., Chemla, D.S., Alivisatos, A.P. and Weiss, S. (2000) Proc Natl Acad Sci U S A 97, 9461-6.		
CO1	Laurence, T.A. and S. Weiss, ANALYTICAL CHEMISTRY: How to Detect Weak Pairs. Science, 2003. 299(5607): p. 667-668.		
CP1	Lee, J., et al., Phosphorylation-Induced Signal Propagation in the Response Regulator NtrC J. Bacteriol., 2000. 182(18): p. 5188-5195.		
CQ1	Lee, L.G. et al. (1997) Nucleic Acids Res 25, 2816-22.		
CR1	Legrain, P. and Selig, L. (2000) FEBS Lett 480, 32-6.		
CS1	Levene, M.J., Koriach, J., Turner, S.W., Foquet, M., Craighead, H.G. and Webb, W.W. (2003) Science 299, 682-6.		
CT1	Liu, J. and Lu, Y. (2002) J. Am. Chem. Soc. 124, 15208-16.		
CU1	Lorenz, M., et al., Global structure similarities of intact and nicked DNA complexed with IHF measured in solution by fluorescence resonance energy transfer. Nucl. Acids. Res., 1999. 27(23): p. 4619-4625.		
CV1	Magde, D., Elson, E. and Webb, W.W. (1972) Physical Review Letters 29, 705-8.		
CW1	Mendelsohn, A.R. and Brent, R (1999) Science 284, 1948-50.		
CX1	Nooren, I.M.A. and J.M. Thornton, NEW EMBO MEMBER'S REVIEW: Diversity of protein protein interactions. EMBO J., 2003. 22(14): p. 3486-3492.		
CY1	Oliver, S. (2000) Nature 403, 601-3.		
CZ1	Palo, K., Mets, U., Jäger, S., Kask, P. and Gall, K. (2000) Biophysical Journal 79, 2858-66.		
CA2	Pandolfi, P.P. (2001) Oncogene 20, 3116-27.		
CB2	Porter SC, N.A., Wedel AB, Kustu S., Oligomerization of NTRC at the glnA Enhancer is required for transcriptional activation. Genes Dev., 1993. 7(11): p. 2258-73.		



Used in Lieu of PTO/SB/08A/B
(Based on PTO 04-07 version)

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	10/561,448-Conf. #8178	
			Filing Date	December 20, 2005	
			First Named Inventor	Shimon Weiss	
			Art Unit	2877	
			Examiner Name	Not Yet Assigned	
Sheet	4	of	5	Attorney Docket Number	58086-226455

CC2	Qian, H. and Elson, E.L. (1990) Biophysical Journal 57,375-80.	
CD2	Rauer, B., Neumann, E., Widengren, J. and Rigler, R. (1996) Biophys Chem 58,3-12.	
CE2	Rippe, K., et al., Transcriptional Activation via DNA-looping: Visualization of Intermediates in the Activation Pathway of E. coli RNA Polymerase. [sigma] 54Holoenzyme by Scanning Force Microscopy. Journal of Molecular Biology, 1997. 270(2): p. 125-138.	
CF2	Rippe, K., N. Mucke, and A. Schulz, Association States of the Transcription Activator Protein NtrC from E. coli Determined by Analytical Ultracentrifugation. Journal of Molecular Biology, 1998. 278(5): p. 915-933.	
CG2	Rippe, K., Simultaneous Binding of Two DNA Duplexes to the NtrC-Enhancer Complex Studied by Two-Color Cross-Correlation Spectroscopy. Biochemistry, 2000. 39(9): p. 2131-2139.	
CH2	Rombel, I, et al., MgATP Binding and Hydrolysis Determinants of NtrC, a Bacteriol Enhancer-Binding Protein. J. Bacteriol., 1999. 181(15): p. 4628-4638.	
CI2	Rothwell, P.J. et al. (2003) Proc Natl Acad Sci U S A 100, 1655-60.	
CJ2	Santero E, H.T., North AK, Berger DK, Porter SC, Kustu S., Role of integration host factor in stimulating transcription from the sigma 54-dependent nifH promoter. J Mol Biol., 1992. 227(3): p. 602-20.	
CK2	Schuler, B. and L.K. Pannell, Specific Labeling of Polypeptides at Amino-Terminal Cysteine Residues Using Cy5-benzyl Thioester. Bioconjugate Chem., 2002. 13(5); p. 1039-1043.	
CL2	Schuler, B., Lipman, E.A. and Eaton, W.A. (2002) Nature 419, 743-7.	
CM2	Schulz, A., et al., Scanning Force Microscopy of Escherichia coli RNA Polymerase. [sigma] 54Holoenzyme Complexes with DNA in Buffer and in Air., Journal of Molecular Biology, 1998. 283(4): p. 821-836.	
CN2	Schwille, P., Meyer-Almes, F.J. and Rigler, R (1997) Biophysical Journal 72, 1878-86.	
CO2	Schwille, P., Oehlenschlaeger, F. and Walter, N.G. (1996) Biochemistry 35, 10182-93.	
CP2	Selvin, P.R. (2000) Nat Struct Biol 7, 730-4.	
CQ2	Sevenich, F., et al., DNA binding and oligomerization of NtrC studied by fluorescence anisotropy and fluorescence correlation spectroscopy. Nucl. Acids. Res., 1998. 26(6): p. 1373-1381.	
CR2	Su, W., et al., DNA-Looping and Enhancer Activity: Association Between DNA-Bound NtrC Activator and RNA Polymerase at the Bacterial glnA Promoter. PNAS, 1990. 87(14): p. 5504-5508.	
CS2	Tintut, Y., J.T. Wang, and J.D. Gralla, Abortive Cycling and the Release of Polymerase for Elongation at the [MAGE] 54-dependent glnAp2 Promoter. J. Biol. Chem., 1995. 270(41): p. 24392-24398.	
CT2	Uetz, P. (2002) Curr Opin Chem Biol 6, 57-62.	
CU2	Uetz, P. et al. (2000) Nature 403, 623-7.	
CV2	Wagner, R., Transcription Regulation in Prokaryotes. 2000, Oxford: Oxford University Press.	
CW2	Wang, J.T. and J.D. Gralla, The Transcription Initiation Pathway of Sigma 54Mutants That Bypass the Enhancer Protein Requirement. IMPLICATIONS FOR THE	



Used in Lieu of PTO/SB/08A/B
(Based on PTO 04-07 version)

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	10/561,448-Conf. #8178	
			Filing Date	December 20, 2005	
			First Named Inventor	Shimon Weiss	
			Art Unit	2877	
			Examiner Name	Not Yet Assigned	
Sheet	5	of	5	Attorney Docket Number	58086-226455

		MECHANISM OF ACTIVATION. J. Biol. Chem., 1996. 271(51): p. 32707-32713.	
	CX2	Wyman, C., et al., Unusual Oligomerization Required for Activity of NtrC, a Bacterial Enhancer-Binding Protein. Science, 1997. 275(5306): p. 1658-1661.	
	CY2	Zhuang, X., Bartley, L.E., Babcock, H.P., Russell, R., Ha, T., Herschlag, D. and Chu, S. (2000) Science 288, 2048-51.	
	CZ2	Zhuang, X., Kim, H., Pereira, M.J., Babcock, H.P., Walter, N.G. and Chu, S. (2002) Science 296, 1473-6.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.